

IN THE CLAIMS:

Please amend claims 1, 10, 19, and 20 as follows:

- AI 1. (Amended) A system for emitting x-rays comprising:

an x-ray emitter;

a controller operably connected to the x-ray emitter;

a current sensor operably connected to the controller; and

a voltage sensor operably connected to the controller; wherein the

controller determines an actual dose rate based on a received current sensor signal and a received voltage sensor signal and adjusts an applied voltage to allow the actual dose rate to match a predetermined dose rate; wherein the applied voltage is increased when the actual dose rate is less than the predetermined dose rate, and the applied voltage is decreased when the actual dose rate is greater than the predetermined dose rate.

- A2 10. (Amended) A method of operating a device for emitting x-rays comprising:

applying a voltage from a voltage source to the device;

measuring current and voltage within the device;

determining an actual dose rate based on the measured current and

voltage;

comparing a desired dose rate to the actual dose rate;

increasing the applied voltage when the actual dose rate is less than the predetermined dose rate; and

decreasing the applied voltage when the actual dose rate is greater than the predetermined dose rate.

19. (Amended) A computer usable medium storing a program comprising:
computer readable code for determining an actual dose rate based on a
measured current and voltage;
computer readable code for comparing a desired dose rate to the actual
dose rate;
computer readable code for increasing an applied voltage when the actual
dose rate is less than the predetermined dose rate; and
computer readable code for decreasing an applied voltage when the actual
dose rate is greater than the predetermined dose rate.

20. (Amended) A system for emitting x-rays comprising:
means for measuring current and voltage;
means for determining an actual dose rate based on a measured current
and voltage;
means for comparing a desired dose rate to the actual dose rate; and
means for matching the actual dose rate to the desired dose rate by
increasing and decreasing an applied voltage.